

The Gravity of Space Tourism

With space tourism no longer just an ideal of the future, the realities of extraterrestrial travel are beginning to become relevant to the average person. Although taking that journey out to the stars may be a dream come true, the possible health consequences that come with such a journey could turn out to be more of a nightmare.

Health Impacts

Brain

The isolation, confinement, and monotony of spending time in space can cause mental health to deteriorate.

Eyes

Radiation can cause cataracts, and head pressure from shifting bodily fluids can lead to more vision problems.

Heart

Space radiation can cause heart disease and damage implanted medical devices. Blood flow is also impacted and can cause the heart to weaken.

Lungs

Bodies are constantly enclosed in lower quality artificial air systems, weakening immune systems.

Spine

Both the bones and muscles in the spinal column weaken during spaceflight, endangering the organs it protects and affecting core movement.

Kidneys

Dehydration and increased excretion of calcium from the bones can lead to higher risks of kidney stones.

Muscle

Muscle mass can decrease quickly in low gravity. Space tourists are entirely weightless in stratospheric travel, so impacts can be drastic.

Bone

In microgravity, weight-bearing bones can lose 1-1.5% of their mineral density per month, possibly causing osteoporosis. Severe bone density loss can not always be fixed through rehabilitation.

Prevention



Exercise routines to help maintain muscle mass and bone density



IV solutions to prevent dehydration and lack of nutrients



LED lighting to simulate natural light for circadian rhythms



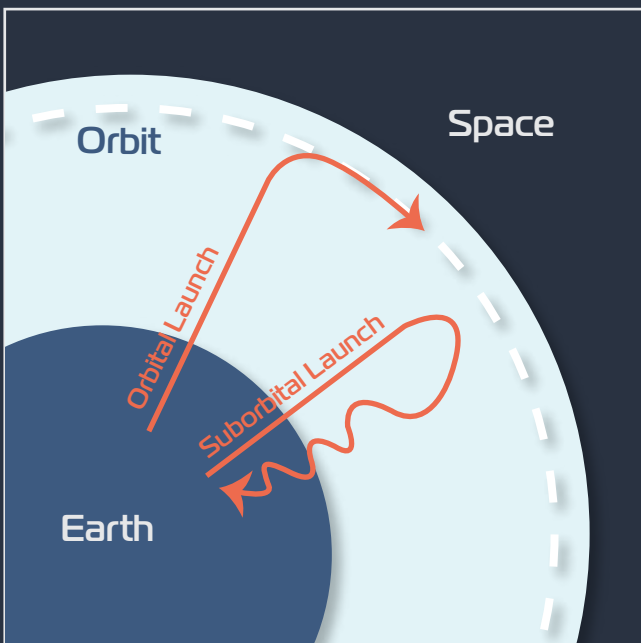
Compression clothing to keep blood in lower extremities



Journaling for further research purposes and astronaut mental health

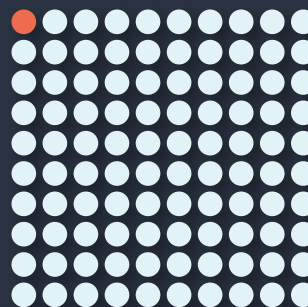


Food planning for mental and physical health



Suborbital Launch

Percentage of total deaths/injuries



Orbital Launch

Percentage of total deaths/injuries

